

3rd Annual All California Defense Summit

California Military Infrastructure and Encroachment Challenges



Chair Robert B. Weisenmiller

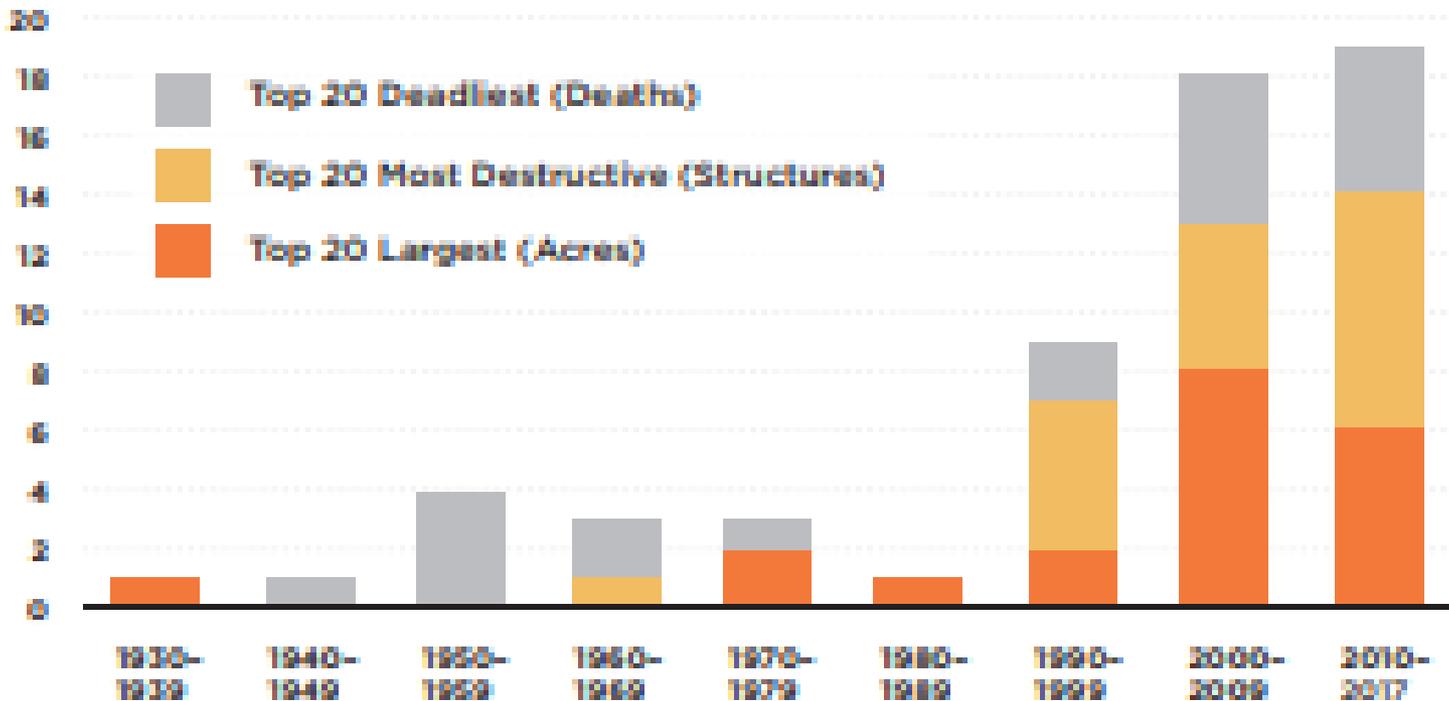
August 8, 2018

California Energy Commission

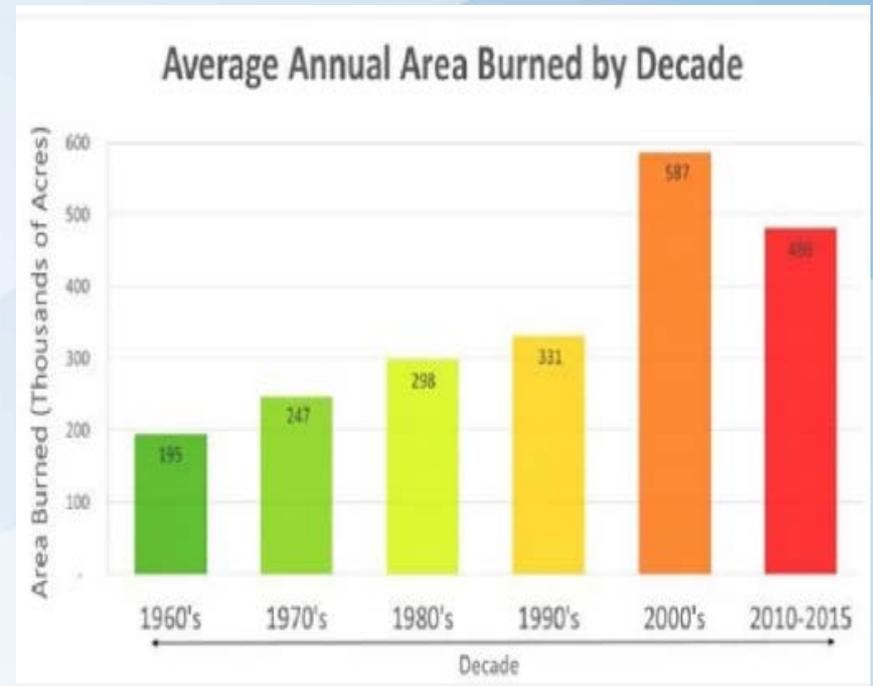
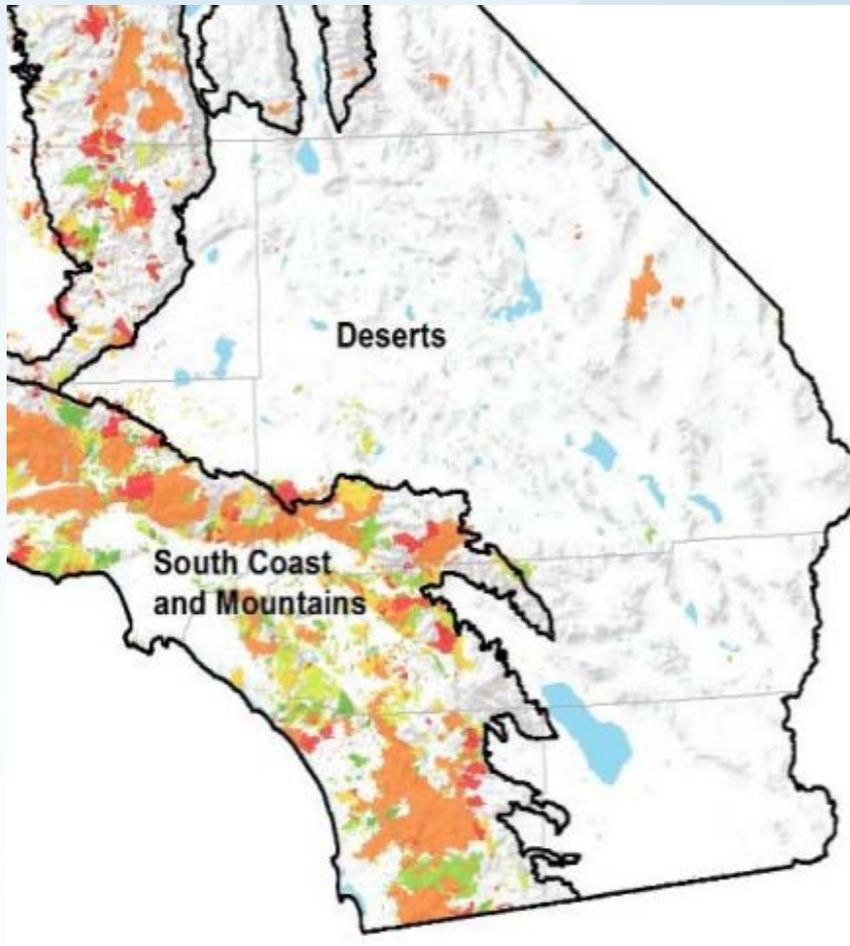


Fire Risks are Increasing

TOP 20 LARGEST, MOST DESTRUCTIVE, AND DEADLIEST WILDFIRES IN CALIFORNIA



SoCal Fires Have Increased





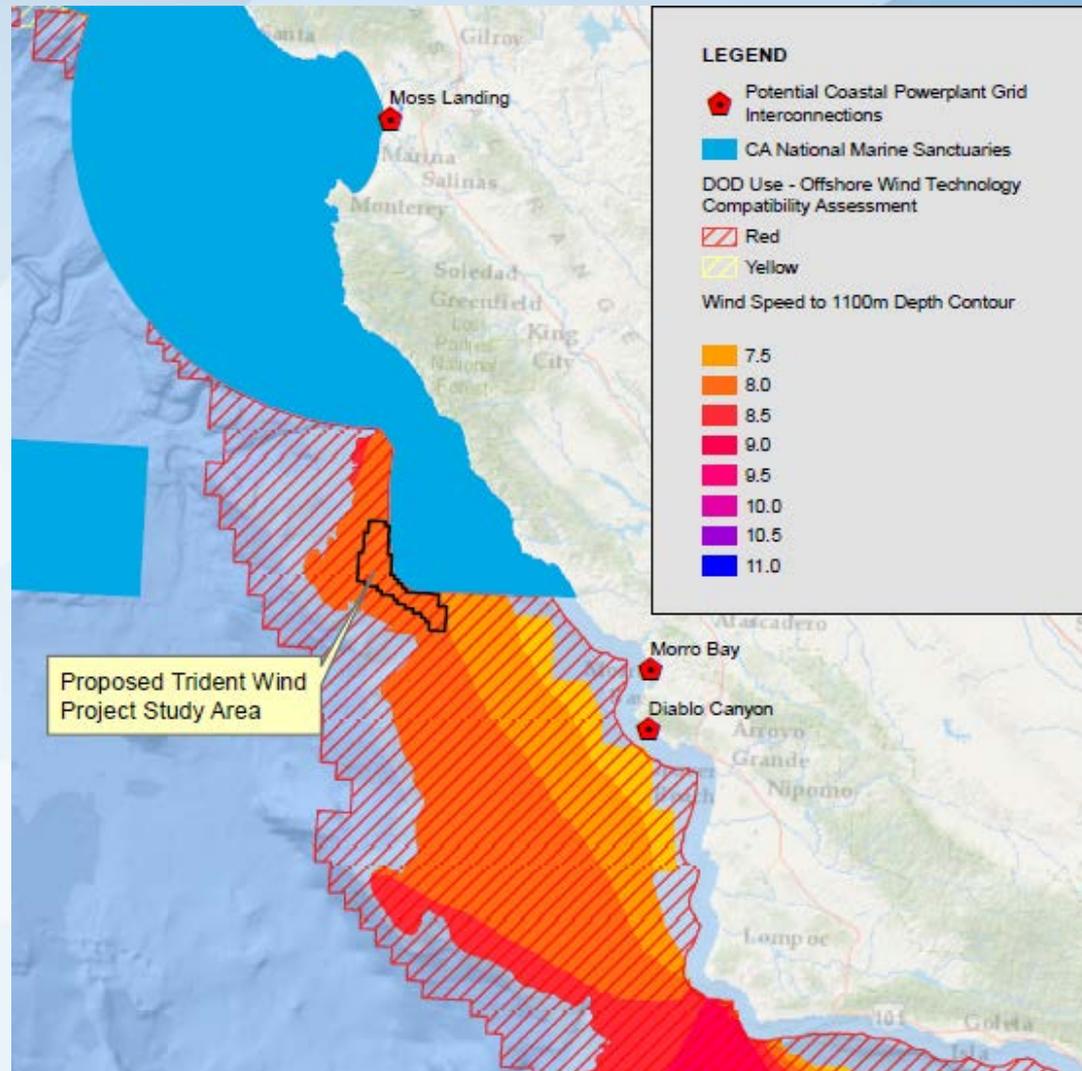
CEC Microgrid Projects

Description		Overview
Title	Miramar Microgrid - Flight Line Resilience through Landfill Gas and Energy Storage	<p>Project Summary: Demonstrates the use of landfill gas power generators and PV in conjunction with a battery energy storage system to create a carbon-neutral grid resource capable of maintaining critical flight line facilities during grid. Reliability will be verified through Monte Carlo simulations driven by real loads, LFG reliability metrics, and battery dispatch.</p> <p>Key Values</p> <ul style="list-style-type: none"> • Demonstrate increased renewable penetration as MCAS Miramar seeks to expand its onsite portfolio to 75% renewables by 2020 • Demonstrate integration of many DER systems into critical military base operations • Demonstrate large scale microgrid supporting many customers • Demonstrate reduced diesel operating hours due to increased DER systems • Integrate DR with VGI in active demonstrations • Track, measure, and report on economic savings and value matrix obtained • Track and report on business case for other military installations to follow
Contractor	UCSD	
Funding	\$5,000,000 (EPIC) & \$6,002,320 (Match)	
Location	Miramar, San Diego	
IOU	SDG&E	
Subcontractors	<ul style="list-style-type: none"> • Schneider Electric • MCAS Miramar • Johnson Controls • NREL • GC Green 	

Camp Parks Army Microgrid – A Blueprint for Nested, Modular Design	<p>LBNL \$5,000,000 (\$11,410,900)</p>	1133 12th St, Dublin, CA 94568
Miramar Microgrid - Flight Line Resilience through Landfill Gas and Energy Storage	<p>UCSD \$5,000,000 (\$6,002,320)</p>	Miramar Way, San Diego, CA 92145
Port Hueneme Server Farm Building Microgrid	<p>EPRI \$4,998,345 (\$3,502,754)</p>	4363 Missile Way, Port Hueneme, CA 93043-4307

Offshore Wind Potential

- 2016 – Taskforce set up to explore opportunities for offshore renewable development.
- MOU with DOI to look at GHG reductions and RE development
- MOU with Scotland and Denmark to understand experience of permitting, construction, and operation



Commitment to Clean Transportation

Cap and Trade Expenditure Plan

- \$1.25 Billion in climate investments
 - \$460 million for low carbon transportation

Governor's Budget Proposal

- \$235 million for ZEV infrastructure

Executive Order B-48-18

- 200 hydrogen refueling stations by 2025
- 250,000 charging stations by 2025
- At least 5 million ZEVs by 2030

“To meet our ambitious goals, we will need five million zero-emission vehicles on the road by 2030. Think of all the jobs that will create and how much cleaner our air will be.”

Governor Jerry Brown

January 2018



NASEM Climate Workshop in DC

Aug 14-15, 2018

Agenda topics include:

- Changing Precipitation Patterns and Implications for Water Management
- Heat Islands and Susceptible Communities
- Engaging Regional Stakeholders and Climate Collaboratives
- Moving from Assessment to Action
- Initiating, Sustaining and Evolving Climate Assessment Processes

